I. A research project in highland Guatemala

A. Illustrates issues we’re discussing in this section of the course

1. Several of the issues that continue to complicate medical research, and international development projects related to health

   a. Although took place in the late 1960s

   b. Its problems and the issues it raises are relevant to project design today

   c. The one exception to applicability is also instructive

      1) Institutional research boards’ informed consent practices differ

B. The project investigated the population genetics of the communities on Lake Atitlán in highland Western Guatemala

1. NSF-funded project; researchers from Stanford Medical School and the Anthropology Department

2. The design called for two summers of pilot projects to take place prior to the 3-year project itself

   a. I participated during the second summer in 1966

   b. Other participants were:

      1) The Principal Investigator from Stanford Medical School, Howie, trained as a pediatrician, now doing population genetics

      2) A professor of anthropology, Cliff

      3) A graduate student in Anthropology who was finishing up a year of dissertation fieldwork, Bill

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4) A physician (an intern), Dave  
5) Me  
c. The plan was to get established and then the two senior men would leave, Dave and I would do the work  
   1) Bill would continue work on his dissertation and help when needed  

C. Obtaining blood samples for clinical or research work was known to be difficult in Mexico and Central America  
   1. Our strategy: providing medical service in exchange for blood samples  
      a. Blood would be taken as part of a physical exam  

D. We experienced utter failure in the first town, Santiago de Atitlán, during the first part of the summer  
   1. And total success in another nearby town, Cerro de Oro, 10 kilometers away, during the second part  
   2. The analysis below tries to explain these radically different outcomes  

E. Comparing the outcome in the two towns is an example of a controlled comparison  
   1. Many variables were held constant  
      a. Same time period  
      b. Same research team  
      c. Same project  
      d. Almost the same place  
   2. Perfect controlled comparisons hold everything constant except the dependent and independent variable being studied  
      a. Allowing the most rigorous testing of a hypothesis  
      b. The fewer the variables that might be affecting the outcomes, the better
3. Santiago Atitlán
   a. Tzutujil-speaking (a Mayan language)
   b. Population about 9,000, vast majority indigenous
      1) About 100 Ladino (non-indigenous) families

4. Cerro de Oro
   a. Population 1500
   b. Kachikel (another Maya language) speakers
   c. No Ladinos except for 2 couples who were schoolteachers

II. The experiences in the two towns
   A. In Santiago Atitlán we provided physical exams and took bloods for about two weeks
      1. We had expected some difficulties, we encountered many
      2. The people taking the exams did not like having their blood taken
         a. Researchers taking blood samples elsewhere in Mesoamerica had been run out of town
         b. Lots of rumors had circulated in these other sites
            1) For example, the gringos were going to sell blood
            2) Eat the blood
            3) Do sorcery with it to steal babies and eat them
         c. Sound familiar? The Scheper-Hughes article on organ stealing rumors?
         d. A widely held idea in Mesoamerica was that we have a fixed amount of blood
            1) It cannot be replaced except with transfusions
2) But transfusions are dangerous

2. After a week, all but one of our research assistants quit
   a. These four men had been working all year for Bill

3. After 2 weeks, no one was coming to the clinic
   a. Not even when pressured by the Catholic priests who were cooperating with us
   b. The diocese of Oklahoma was in charge of the parish of Santiago Atitlán
   c. The Church had set up a clinic and hired a physician who came in bi-weekly from Guatemala City

4. We found out that lots of rumors had been circulating
   a. Not just about our taking blood
   b. But saying the men were looking up the women’s blouses, etc.

B. We consulted with the priests and physician, and worked out a plan for Cerro de Oro
   1. Which had asked for a clinic
      a. And had built one with Alliance for Progress funds (show photograph)
      b. But still had no health care
   2. The basic research plan was the same
      a. I would collect histories
      b. Dave would do exams
      c. We would take blood samples as part of the overall exam

C. It was a tremendous success
   1. We delivered much-needed health care
2. We collected comprehensive genealogies and blood samples from the majority of families.

3. The town was very pleased with the project (show photograph of 2 research assistants with mayor, one with family)

III. Factors influencing the outcomes

A. Cultural differences

1. Santiago was the center of traditional healing, who were called zaharines

   a. Some of them were also seen as sorcerers, especially by Indians located in other towns on the lake

   b. The best black magic was considered to come from Santiago Atitlán

   c. Maximón, a 3 ½ foot high statue, was a complicating figure

      1) Was housed in a cofradía (brotherhood, fraternal organization) house, and was taken care of by a cofradía named Santa Cruz

      2) Other saints (for example, Santiago Matamorros, the patron saint) were taken care of by other cofradías

         a) There were 10 cofradías in all

      3) Maximón was said to be the fourth brother of Jesus

      4) He was in charge of shamanic healing, magic, sorcery

      5) A very ambivalent figure

      6) Can be seen as a supernatural agent of social control

         a) For example, if women were out alone at night, they ran the risk of being raped by Maximón

      7) He was dressed like a ladino, in a suit coat

         a) Big black felt hat
b) Big cigar in his mouth (cornhusk face)

8) During Semana Santa (Holy Week) he was converted into a Judas figure

a) And taken into the plaza in front of the church and hanged

d) The Catholic priests had greatly disapproved of all this

1) A book, *The Scandals of Maximón*² was written about a conflict in the town involving the Catholic clergy in 1948

a) The priests had forbidden Maximón’s *cofradía* (Santa Cruz) to bring him into the church—as other *cofradías* could do with their saints

b) The priests arranged to have Maximón stolen, and he was taken to the Musée de L’Homme in Paris

c) But there was such an outcry that he was finally returned

2) This conflict had not been forgotten by the inhabitants of the lake’s towns and villages

2. In Santiago Atitlán Western medicine practitioners were to some degree in competition with local healers

a. Conflicts between non-Catholic beliefs and practices, and orthodox Catholicism continued

b. Perhaps the non-Catholic aspects of this very syncretistic religion of the entire lake region were stronger in Santiago Atitlán than in Cerro de Oro

1) Facilitating acceptance of western medical practitioners (us)

B. Second difference: How the project was introduced

1. Cerro de Oro had expressed a felt need for Western medicine

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a. Santiago had many highly respected native healers

b. As well as the Catholic clinic

1) Although we tried to minimize the appearance of competition with the clinic, this was a factor

c. The people of Cerro de Oro were certainly getting more of what they’d asked for

1) We provided medical service in the town

2) We arranged for permanent local health care delivery after we left

3) The Catholic mission agreed to supervise it: make weekly visits

4) You can’t set up a temporary clinic

5) If you leave after several months, people are worse off

C. 3rd difference: How the project was evaluated by the community

1. The competition problem in Santiago

a. “We can go to the Catholic mission clinic when we’re sick, we don’t need you”

b. No competition in Cerro de Oro—quite the opposite

2. In Santiago Atitlán, we provided no acute care

a. We were providing medical exams, preventive medicine

1) Precisely in order to not appear to be competing

2) When someone was found with something wrong, we sent them to the Catholic clinic

b. This discredited our M.D.s

1) Since they were just diagnosing, they weren’t considered doctors
2) They didn’t buy into our message of “find out if something’s wrong”

c. We gave out little pills (for iron), but Latin Americans know injections are far more effective

d. Howie would give out the pills saying “hierro” (iron)—which meant nothing to the Indians

1) “To make you strong, build up your blood”

   a) Didn’t fit into local understanding of blood

3. In contrast, although Cerro de Oro didn’t really buy the notion of preventive physical examinations either

   a. We had plenty of opportunity to demonstrate our ability to treat problems

   b. Right at the beginning a very serious case of scabies was brought in that cleared up right away with penicillin

   c. Worm medicine, etc.

   d. And several advanced cases of T.B. (show photograph)

1) Which improved a great deal over the course of the summer

D. The fourth reason is the effects of the trajectory of our stay

1. Early on in Santiago Atitlán Howie took blood from a 1-yr. old baby—ill-advised

   a. We learned from our mistakes and didn’t repeat them in Cerro de Oro

2. A possible additional factor might be the other project I was carrying out in Santiago Atitlán:

   a. I was interviewing midwives

1) And interviewing 2 samples of women: those with large families, and women who were “spacers” in their reproductive histories
b. Possibly rumors went around about overly inquisitive gringos, asking too-personal questions

c. Also, my research assistant in Santiago was a Protestant

1) And there was a lot of conflict between Catholics and evangelical Protestants in the town

3. Santiago was less homogeneous than Cierro de Oro by far

a. Much bigger

1) More factions, less face-to-face interaction, many more outsiders (the boat stopped there; buses came up from tropical lowlands)

b. This heterogeneity may have contributed to the outcome

E. Fifth reason: Social Differences

1. The men with the most authority in Cerro de Oro were identified with the project

a. The Mayor and other town officials very much supported the clinic

b. Not true in Santiago Atitlán at all

F. Sixth: Relations with outsider Guatemalans

1. The schoolteachers in Cerro de Oro were Ladinos (non-indigenous) (show photograph)

a. But were very respected and appreciated

2. Whereas Ladino-Indian relations in Santiago were very conflictual

IV. Institutional Review Boards and Informed Consent

A. **Discuss**

1. What would be different about our research protocol today?

2. Inhabitants of both towns who came to our clinic were not told about the
nature of the project

3. At that time no research institutions required informed consent forms to be signed by indigenous people from Third World countries

a. How would you explain the project to a resident if you were doing this kind of research?

V. A final, very sad note

A. Everyone we worked with was killed in the repression during the civil war of the 1970s and 1980s—200,000 deaths in the country, vast majority of them indigenous

1. Santiago Atitlán was hit very hard